

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2010-376-E - ORDER NO. 2011-345

MAY 16, 2011

IN RE: Petition of South Carolina Electric & Gas	) ORDER APPROVING
Company for Updates and Revisions to	) UPDATES AND
Schedules Related to the Construction of a	) REVISIONS TO
Nuclear Base Load Generation Facility at	) SCHEDULES AND
Jenkinsville, South Carolina	) SETTLEMENT
	) AGREEMENT

**I. INTRODUCTION**

This matter comes before the Public Service Commission of South Carolina (the “Commission”) on the petition of South Carolina Electric & Gas Company (“SCE&G” or the “Company”) for an order approving an updated capital costs schedule for the construction of two 1,117 net megawatt nuclear power units (the “Units”) to be located at the V.C. Summer Nuclear Station near Jenkinsville, South Carolina. SCE&G filed the Petition in this docket (the “Petition”) on November 15, 2010, pursuant to S.C. Code Ann. § 58-33-270(E) (Supp. 2010). Under that provision of the Base Load Review Act (the “BLRA”), a utility “may petition the Commission . . . for an order modifying any of the schedules, estimates, findings, class allocation factors, rate designs, or conditions that form part of any base load review order.” S.C. Code Ann. § 58-33-270(E) (Supp. 2010). Further, “[t]he Commission shall grant the relief requested if, after a hearing, the Commission finds . . . that the evidence of record justifies a finding that the changes are not the result of imprudence on the part of the utility.” Id.

In Order No. 2009-104(A), dated March 2, 2009, the Commission initially approved a capital costs schedule for the Units totaling \$4.5 billion in 2007 dollars. The South Carolina Energy Users Committee (“SCEUC”) appealed Commission Order No. 2009-104(A) to the South Carolina Supreme Court.

In Order No. 2010-12, dated January 22, 2010, the Commission approved an updated construction schedule for the project and an updated capital costs schedule which reflected that updated construction schedule. The capital costs schedule approved in Order No. 2010-12, however, did not alter the total estimated capital cost for the Units of \$4.5 billion in 2007 dollars.

On August 9, 2010, the South Carolina Supreme Court issued its decision in *South Carolina Energy Users Comm. v. South Carolina Pub. Serv. Comm'n*, 388 S.C. 486, 697 S.E.2d 587 (2010) (the “Opinion”) concerning the SCEUC’s appeal of Order No. 2009-104(A). In its Opinion, the Court ruled that contingency costs which had not been itemized or designated to specific cost categories were not permitted as a part of approved capital cost schedules under the BLRA. The effect of this decision was to require the removal of \$438,291,000 in projected contingency costs from the capital cost schedules approved in Order No. 2009-104(A) and Order No. 2010-12.

In its Opinion, the Supreme Court acknowledged that S.C. Code Ann. § 58-33-270(E) (Supp 2010) allows SCE&G to petition the Commission to update the capital cost schedule for the Units as SCE&G identifies and itemizes specific items of cost and reclassifies contingency costs to the approved capital cost schedule. The Court noted that “the General Assembly anticipated that construction costs could increase during the life

of the project. Under § 58-33-270(E), SCE&G may petition the Commission for an order modifying rate designs.” *South Carolina Energy Users Comm. v. South Carolina Pub. Serv. Comm’n*, 697 S.E.2d at 592.

In the present proceeding, SCE&G seeks approval of an updated capital costs schedule for the construction of the Units. The Petition states that those updates reflect the removal of contingencies, updated cash flow schedules, and revised forecasts of Owners Costs and Transmission Costs as well as the costs associated with eleven (11) change orders negotiated with the construction contractors. The updated capital cost schedule was submitted as Hearing Exhibit No. 6 (CLW-1 updated). The Public Version of that exhibit is attached hereto as **Order Exhibit No. 1**.

As required by S.C. Code Ann. § 58-33-270(E) (Supp. 2010), SCE&G provided notice of the filing in this docket to the South Carolina Office of Regulatory Staff (“ORS”). By letter dated November 29, 2010, the Commission’s Clerk’s Office instructed the Company to publish by January 17, 2011, a Notice of Filing and Hearing (“Notice”) in newspapers of general circulation in the area where SCE&G serves retail electric customers and to provide a copy of the Notice to these customers by U.S. mail or by electronic mail to customers who have agreed to receive the Notice by electronic mail. On January 21, 2011, the Company filed affidavits with the Commission demonstrating that the Notice was duly published in accordance with the Clerk’s Office’s instructions and certified that a copy of the Notice was furnished to each affected customer.

Timely Petitions to Intervene in this docket were received from SCEUC and CMC Steel South Carolina (“CMC Steel”), both of which were unopposed. ORS is

automatically a party pursuant to S.C. Code Ann. § 58-4-10 (Supp. 2010). No other parties sought to intervene in this proceeding.

The Commission convened a public hearing on this matter on April 4, 2011, with the Honorable John E. “Butch” Howard, Chairman, presiding. SCE&G was represented by K. Chad Burgess, Esq., Matthew W. Gissendanner, Esq., Mitchell Willoughby, Esq., and Belton T. Zeigler, Esq. ORS was represented by Nanette S. Edwards, Esq. and Jeffrey M. Nelson, Esq. SCEUC was represented by Scott Elliott, Esq. CMC Steel and its counsel did not participate in the hearing.

In support of the Petition, the Company presented the testimony of Kevin B. Marsh, President of SCANA Corporation and SCE&G; Stephen A. Byrne, Chief Operating Officer and Executive Vice President for Generation and Transmission of SCE&G; and Carlette L. Walker, Vice President for Nuclear Finance Administration. ORS presented the direct testimony of M. Anthony James, P.E., Associate Program Manager in the Electric Department of ORS and Mark W. Crisp, P.E., Managing Consultant of C. H. Guernsey & Company. SCEUC presented no witnesses at the hearing.

Under the BLRA, in cases where a settlement agreement has been entered into between ORS and the utility, the Commission is authorized to “accept the settlement agreement as disposing of the matter, and [to] issue an order adopting its terms, if it determines that the terms of the settlement agreement comport with the terms of this act.” S.C. Code Ann. § 58-33-270(G) (Supp 2010). Prior to the hearing in this matter, SCE&G and ORS entered into a settlement agreement in which they agreed that the relief

requested by SCE&G was justified and should be granted (the “Settlement Agreement”). As part of the Settlement Agreement, ORS and SCE&G agreed that the changes SCE&G sought in the updated and revised capital costs schedule for the Units “are the result of refining and improving the timing and sequence of construction activities and are not the result of imprudence by SCE&G.” Settlement Agreement at p. 6, ¶ 3(G). This Settlement Agreement was admitted into the record of the April 4, 2011 hearing as Hearing Exhibit No. 1.

## II. DISCUSSION

For the reasons set forth below, the Commission finds that the Settlement Agreement comports with the terms of the BLRA, and for that reason, the Commission adopts it as an appropriate resolution to the matters raised in this docket. The Settlement Agreement is attached hereto and incorporated herein as **Order Exhibit No. 2**. At issue is the prudence of SCE&G’s revised capital cost schedules for constructing the Units. At the hearing in this matter, no party presented any testimony or other evidence challenging the accuracy of the proposed cost schedules or indicating that the \$174 million in newly identified and itemized costs are imprudent costs or are in any way the result of SCE&G’s failure to manage the project prudently. Instead, the evidence of record shows that the \$174 million in newly identified and itemized capital costs are the result of the normal evolution and refinement of construction plans and budgets for the Units and are not the result of imprudence. Those refinements of plans and budgets include the creation of updated and more detailed estimates of Owners Costs and Transmission Costs for the project based on more than 24 months of work on the project. They also reflect

the negotiation of 11 change orders that are necessary for the success of the project and beneficial to SCE&G and its customers. The evidence shows that the \$174 million in new costs are not the result of any imprudence by SCE&G and reflects costs that SCE&G is incurring as joint-owner of the project to ensure that the project is constructed prudently, efficiently and economically, and to ensure that the Units can be operated and maintained safely and efficiently when they are completed.

In accordance with the terms of S.C. Code Ann. §§ 58-33-270(E) (Supp. 2010) and 58-33-270(G) (Supp. 2010), the Commission finds that the revised cost schedules presented reflect prudent costs and should be approved. The facts and evidence of record supporting this conclusion are as follows:

a. Overview of the Requested Changes

On May 23, 2008, SCE&G entered into an Engineering, Procurement and Construction Agreement for the Units (the “EPC Contract”) with a consortium formed by Westinghouse Electric Company, LLC, and the Shaw Group (together “Westinghouse/Shaw”). Tr. p. 19. One week later, the Company filed a Combined Application under the BLRA seeking a full regulatory review of the project and the EPC Contract by the Commission and ORS. Id. As Mr. Marsh testified, the BLRA specifically allows utilities to file for approval of costs under the BLRA at the same time that they file for authorization to begin construction under the Utility Facility Siting and

Environmental Protection Act (“Siting Act”).<sup>1</sup> Tr. p. 37; see also S.C. Code Ann. § 58-33-230 (Supp. 2010).

In accordance with the terms of the BLRA, SCE&G included in its Combined Application information showing the anticipated components of capital costs and the anticipated schedule for incurring them. As Mr. Byrne testified, the capital cost schedules that were presented to the Commission with the Company’s Combined Application were based on the schedules agreed to in the EPC Contract as well as forecasts of Owners Costs and Transmission Costs that SCE&G had made during the 2006-2008 time frame to support its comparative evaluation of generation sources and nuclear vendors. Tr. p. 105.

As Mr. Marsh testified, SCE&G is operating under a commitment to continue to update and refine its construction schedules and cost schedules as the project progresses, to disclose those revisions to the public in a timely manner, and to bring revisions to this Commission for review and approval as necessary. Tr. p. 32. As Mr. Marsh explained, SCE&G has continued to refine project construction time-lines and estimated cost schedules with a specific focus on the creation of more detailed Owners Cost schedules by the Company’s Nuclear Finance team. These adjustments are a normal and expected

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<sup>1</sup> SCE&G’s 2008 Combined Application gave the Commission the opportunity to conduct a pre-construction review of the entire plan for the Units. That review included a review of the selection of AP1000 technology, the qualifications of Westinghouse to supply that technology, the qualifications of the fabricators and suppliers of major systems and equipment for the plant, the qualifications and suitability of construction contractors and subcontractors, the project risk factors, the financial plan for the Units and the forecasted rate impacts of the plan. SCE&G’s filing of the Combined Application for the Units upon signing of the EPC Contract facilitated a detailed review of all facets of the construction decision before full construction authorization was granted. As such, the timely filing of the BLRA application for these Units was in keeping with the public interest and the intent of the BLRA which provides for the comprehensive review of construction costs and plans early in the construction process.

part of implementing a construction plan of the size and scope of the present project. In keeping with this commitment, SCE&G continues to review and update project costs and construction schedules in a timely manner.

Tr. p. 32.

Company witness Ms. Walker testified that the adjustments requested by the Company in this proceeding fall into three general categories:

1. The removal of approximately \$438 million in owner's contingency funds that were included in the approved capital costs schedules approved in Order No. 2009-104(A) and Order No. 2010-12 consistent with the decision of the South Carolina Supreme Court in *South Carolina Energy Users Comm. v. South Carolina Pub. Serv. Comm'n*, 388 S.C. 486, 697 S.E.2d 587 (2010).
2. The inclusion of approximately \$174 million in newly identified and itemized capital costs.
3. Updates to the project cash flow projections reflecting timing changes to the schedule for incurring capital costs.

Tr. p. 221-222. The effect of these changes is to decrease the approved capital costs schedule for the Units from \$4.5 billion as originally approved to \$4.3 billion, in 2007 dollars net of Allowance for Funds Used During Construction ("AFUDC"). Tr. p. 222. These changes, along with the effect of the current escalation rates, have reduced SCE&G's total projected cost of the Units in future dollars from \$6.9 billion to \$5.8 billion. Tr. p. 222-23.



b. Contingency Funds

As Mr. Marsh testified, SCE&G included in the cost schedules approved in Order No. 2009-104(A) and Order No. 2010-12 a reasonable forecast of owner's contingency for the project, which was approximately \$438 million in 2007 dollars or slightly less than 10% of the total project cost forecast. Tr. p. 19. The approval of these funds was made with the understanding that "[i]f such contingencies were not allowed under the Act, the Company would be required to seek an amendment to the base load review order for every change order, scope or design change, or mis-forecast of owner's cost or transmission cost during the life of the project." Order No. 2009-104(A), p. 97.

Subsequent to the issuance of Order No. 2009-104(A) and Order No. 2010-12, the South Carolina Supreme Court issued its opinion in *South Carolina Energy Users Comm. v. South Carolina Pub. Serv. Comm'n*, 388 S.C. 486, 697 S.E.2d 587 (2010). The Opinion held that contingency costs could not be included in forecasts approved for BLRA purposes until the costs could be identified and itemized to specific costs categories. In response, in this filing, the Company has removed approximately \$438 million in owner's contingency funds from the cost forecasts that were approved by the Commission in Order No. 2009-104(A) and Order No. 2010-12. ORS witness Mr. Crisp testified that he reviewed the Company's filing and supporting documentation and determined that the Company has removed the \$438 million contingency amount as well as \$217 million in escalation amounts that had been associated with the contingency funds in earlier cost schedules. Tr. p. 336-37.

The Commission finds that removing these funds from the BLRA approved forecasts is consistent with the Opinion of the South Carolina Supreme Court and its interpretation of the BLRA. The amounts in question reflect the amount of owner's contingency included in the capital cost forecasts in Order No. 2009-104(A) and Order No. 2010-12. As discussed below, the \$4.3 billion in costs that remain in the schedules are costs that have been identified and itemized to specific cost categories as the Opinion requires.

c. Identified and Itemized Capital Costs

Included in the updated capital costs schedule is approximately \$174 million in costs that the Company has identified and itemized to specific cost categories subsequent to Order No. 2009-104(A). Prior to the Supreme Court's Opinion, costs of this kind were being accounted for using the \$438 million owner's contingency fund. Tr. p. 20. The Company is now seeking to include these costs in the approved cost forecasts for the Units under S.C. Code Ann. § 58-33-270(E) (Supp. 2010). As Mr. Byrne testified, changes in cost forecasts "are a normal and expected part of an 11-year, \$6 billion construction project." Tr. p. 106-07.

As shown on Hearing Exhibit No. 5 (CLW-3), this \$174 million has four principal sources:

(i) approximately \$145 million represents additional Owners Costs that have been identified through SCE&G's ongoing development of its nine-year cost-center-by-cost-center budget for the Owners Cost portion of the project;

(ii) approximately \$13 million represents net additional transmission costs that will be incurred for transmission construction projects SCE&G's transmission department will undertake to reconfigure the Unit 1 switchyard at the Jenkinsville site to support the power flows from Units 2 and 3;

(iii) \$10 million represents a payment to Westinghouse/Shaw as consideration for Westinghouse/Shaw assuming the primary price risk for an additional \$315 million in costs under the EPC Contract; and

(iv) approximately \$6.3 million represents nine other change orders that SCE&G has negotiated to the EPC Contract to support the more efficient construction of the Units and training of the personnel that will operate it, as well as certain other costs that must be reallocated between SCE&G and Santee Cooper as the joint owners of the Units based on the nature of the work involved. Tr. p. 21-23. Each of these categories of costs is discussed in more detail below.

d. Owners Costs

The Company is seeking BLRA approval of cost forecasts that include \$145 million in Owners Costs that have not previously been presented to this Commission for approval. Owners Costs, as Ms. Walker testified, include costs that SCE&G will incur in overseeing the construction project; in obtaining licenses and permits for the project; in recruiting, hiring and training staff for the Units; in preparing written operating procedures for the operations maintenance, safety and security of the Units; in accepting, testing and maintaining the systems and components of the Units as they are completed and turned over to SCE&G pending completion; in providing the materials and supplies

needed for maintenance of plant systems up to the date of commercial operations; in testing of the Units when they are released for testing; and in conducting start-up activities. Tr. p. 236. Owners Costs also include a number of construction related cost items for which the EPC Contract makes SCE&G responsible. These include items like workers' compensation insurance for all contractors and subcontractors on the site; builders risk insurance; transportation insurance related to the equipment and components of the project; miscellaneous taxes including real property and sales taxes associated with the project; electric power and other utilities for the project; site security; and certain preconstruction costs associated with the site. Tr. p. 236.

As Mr. Byrne testified, the Owners Costs estimates that were presented and approved in Order No. 2009-104(A) were prepared based on forecasts that were compiled during the Company's evaluation of nuclear capacity options and negotiations with suppliers that took place in the 2006-2008 time period. Tr. p. 105. In creating those forecasts, the Company utilized information from a number of sources, including a) Westinghouse/Shaw and other nuclear technology suppliers, b) consultation with other prospective Westinghouse AP1000 owners, c) nuclear and environmental licensing consultants, d) SCE&G's operating experience with V. C. Summer Unit 1, and e) SCE&G's other utility operating and construction experience. Tr. p. 105-06. Mr. Byrne testified that the forecasts reflected estimates for major anticipated categories of Owners Costs based on accepted industry estimating techniques and data and were not based on detailed, item-by-item budgets such as have now been prepared for the project. Tr. p. 106.

As Mr. Byrne explained, at the time the original Owners Costs forecasts were compiled, the terms for purchasing the Westinghouse Units were under negotiation and no commitment to purchase the Units had been made. Tr. p. 105. As Mr. Byrne and Ms. Walker noted, detailed Owners Costs budgeting requires detailed hiring, staffing, training and operating plans for the Units to be in place. Tr. p. 106; p. 238-39. These plans, in turn, require: a) an integrated, site-specific construction schedule, b) detailed information about scope of SCE&G's responsibility for construction activities under the EPC Contract, and c) detailed information about the functions, policies, practices and procedures that will be involved in operating and maintaining the Units in start-up and testing, and in commercial operations. Tr. p. 106, 238-39. As SCE&G explained during the 2008 hearing, Westinghouse/Shaw began building the integrated site-specific construction schedule once the EPC Contract was signed, and provided a document that included the level of detail required by SCE&G in April of 2009. Tr. p. 239. This schedule and the cash flow schedules associated with it were the focus of the Commission's 2009 BLRA proceeding that resulted in Order No. 2010-12.

In addition, as Ms. Walker testified, the EPC Contract allocated specific responsibilities for construction, testing and start-up of the Units between SCE&G and Westinghouse/Shaw. It also allocated responsibility for items such as insurance, sales tax administration, licensing and permitting, and site security between the parties. Tr. p. 240. According to SCE&G's witnesses, it would not have been practical to begin to create detailed Owners Costs budgets for the project until the terms of the EPC Contract were finalized and the resulting assignment of responsibilities could be communicated to the

multiple cost centers across SCANA that would be required to support the project and create budgets for that support. Tr. p. 176, 239-40, 297.

Similarly, the testimony in this docket indicates that the scope of the New Nuclear Deployment (“NND”) Team’s oversight responsibility for costs depended greatly on the pricing terms of the EPC Contract. Under that agreement, Westinghouse/Shaw bears the price risk for scopes of work that are in the Fixed or Firm cost categories, while SCE&G pays actual costs for scopes of work that are in the Target or Time and Materials cost category. Tr. p. 78. The NND Team’s oversight responsibility as to the costs and the cost impacts of construction techniques and decisions depends on whether the associated scopes of work are in the Fixed/Firm or Target/Time and Materials cost categories. Tr. p. 230-31. Until the allocation of scopes of work between these categories was finalized, the scope of the NND Team’s oversight responsibilities was unclear. Tr. p. 230-31, 298. For all these reasons, it was not practical for SCE&G to prepare detailed cost-center-by-cost-center budgets until the EPC Contract was finalized, an integrated site-specific schedule was produced and SCE&G’s NND Team was staffed and given the time and information needed to conduct the required budgeting and planning. Based on Mr. Byrne’s testimony, the Commission finds that this approach to cost forecasting was consistent with established industry practice and reasonably reflected the practicalities of budgeting for major utility projects. Mr. Byrne and Ms. Walker both testified that the 2006-2008 estimates were reasonable and prudent based on the stage of the project at that time and based upon the information available to the Company at that time. Tr. p. 213,

303-04. The Commission finds this testimony to be credible and agrees with the witnesses' conclusion in this regard.

During the negotiation of the EPC Contract, the NND Team conducted the comparative evaluations of nuclear technologies and vendors. As the evidence indicates, a comparative evaluation of nuclear technologies involved the evaluation of the cost of nuclear units offered by the three vendors and the cost of those units compared to other generation alternatives. Tr. p. 105-06. Creating a reasonable estimate of Owners Costs was an integral part of the nuclear evaluation process.

Following the execution of the EPC Contract, the NND Team began the more detailed planning and budgeting for its work over the upcoming 11 years. Tr. p. 237-38. The current cost forecast resulted from this effort. It is based on the site-specific integrated construction schedule, and the detailed staffing, hiring and training plans that have been developed since 2008.

The current cost forecasts also reflect the detailed cost-center-by-cost-center budgeting of the support services that the project will receive from other, non-nuclear areas within SCE&G and SCANA. Tr. p. 240. Such costs include support services from areas such as SCANA Audit Services, Legal, Treasury, Environmental, Forestry Services, Risk Management and Insurance, Facilities Management, and multiple groups within current Nuclear Operations (*i.e.*, groups like Unit 1 Health Physics that may assist on an as-needed basis in creating staffing plans and writing operating procedures for parts of Unit 2 & 3 operations). Tr. p. 240. Each cost center that is anticipated to incur charges in excess of \$5,000 per year for the project was required to create a budget by

function code and by year for the nine remaining years of the project. Tr. p. 241. These budgets were carefully reviewed by Ms. Walker and the Nuclear Finance group.

A copy of SCE&G's current Owners Costs budget was sponsored by Ms. Walker as Hearing Exhibit No. 5 (CLW-4). It is a detailed budget document with over 400 individual line items. SCE&G has made the back-up information related to this budget available for review by ORS and all other parties, provided that reasonable arrangements related to confidentiality are made. Tr. p. 244-45. No party has filed any testimony challenging the prudence or reasonableness of any of the costs reflected in this budget.

In Hearing Exhibit No. 5 (CLW-3), Ms. Walker provided an item-by-item analysis of the cost adjustments being presented for review in this docket. In an effort to provide more detailed information about the changes driving the \$145 million in newly-itemized Owners Costs, Ms. Walker provided testimony breaking down the \$145 million according to the cost categories used to create the 2006-2008 budget. See generally Tr. p. 245-58. Ms. Walker was careful to point out that the current 130 cost center budgets reflect very different cost categories and budgeting methods than those on which the 2006-2008 forecasts were built. Tr. p. 245. These differences required Ms. Walker and her team to reallocate the current budget into the cost categories that had been used to create the 2006-2008 forecast using their best accounting and managerial judgment. In some cases, the cost for a single cost center in the current budget costs had to be allocated across multiple categories used in the 2006-2008 forecasts. Id. For these reasons, as Ms. Walker pointed out, there are inherent limitations in comparing the two forecasts. Id. Nevertheless, Ms. Walker presented this comparative analysis along with testimony



describing the various cost drivers associated with the differences between the original estimates and the current budgets.

**Onsite Training & Startup/SCE&G Labor** – The largest component of SCE&G’s proposed adjustment to Owners Costs is represented by the Onsite Training & Startup/SCE&G Labor category. As Ms. Walker testified, the costs represented here are the NND Team’s current budget for its direct labor costs based on the detailed hiring, training and staffing plans for construction project oversight and operational readiness. Tr. p. 247. The testimony shows that the drivers for the changes in budgeted costs for this cost category include: (i) increases in the cost of recruiting and deploying an NND team capable of overseeing the construction, operational readiness, licensing and financial aspects of the project; and (ii) increases in the cost of recruiting, hiring, training and employing the personnel who will operate and maintain the Units as responsibility for them is turned over to SCE&G by Westinghouse/Shaw. Tr. p. 247-48.

As Ms. Walker explained, the oversight function of the NND Team requires an extensive team of employees skilled in highly specialized areas. Tr. p. 247. Attracting such employees to the project has required compensation set at levels sufficient to attract, recruit, hire and retain individuals with the appropriate qualifications. Id. Under the EPC Contract, security, testing and maintenance responsibility for major systems of the Units will be turned over to SCE&G as those systems are completed. Tr. p. 248. The recruiting, training and staffing plans for the project must support SCE&G’s ability to safely and effectively accept that responsibility. Those plans must also support SCE&G’s ability to fulfill its role in the start-up and testing of each of the Units and to

provide the permanent staff to safely and efficiently operate the Units after commercial operations begin. Tr. p. 248-49. In some cases, regulatory changes since the EPC Contract was negotiated have increased the required staffing and training levels. Tr. p. 299-300.

Ms. Walker testified that, as staffing and training plans have become more refined, SCE&G has determined that it must recruit additional employees, recruit them earlier and keep them on the nuclear payroll longer than had been anticipated in 2006-2008. Tr. p. 247-48. In addition, SCE&G has increased the staffing and required skill level of its oversight team in light of the complexity of that function and the importance of ensuring control over the cost and quality of the Units as they are constructed. Tr. p. 248. The budgets for these costs will continue to be reviewed and updated as the project progresses. Tr. p. 243. The result of the current changes in staffing costs and plans is an increase of approximately \$64 million in the category of Onsite Training & Startup/SCE&G Labor category.

**Insurance** – As a cost savings measure, SCE&G is providing a combined insurance package for workers compensation insurance, construction risk insurance and transportation insurance for the project. As Ms. Walker testified, the underlying cost of the insurance has not changed but the costs of administering the program were not included in the original Owners Costs forecast for Insurance. Tr. p. 249. As Ms. Walker testified, the comparative analysis she provided was based on two very different Owners Costs projections. The 2006-2008 projection found on Chart C in her testimony shows a single entry for General and Administrative Costs for the entire project. As shown on

Hearing Exhibit 5, CLW-4, the updated budget shows labor, general business expenses and other administrative and support costs for each individual cost center. See Exhibit 5, CLW 4 at page 8-9 (showing individual labor and general business expense items associated with the cost center for Insurance). The estimate for Insurance in the 2006-2008 budgets was \$57.8 million. The updated budget shows the outside cost to be paid for insurance remains at \$57.8 million. The cost of administrative and support services associated with the Insurance cost center is \$1.1 million. This \$1.1 million represents the variance in the insurance cost budget between the 2006-2008 forecast and the current budget and is a result of the new, more detailed cost-center-by-cost-center budget on which the current cost information is based.

**Sales Tax** – SCE&G is sharing the cost of the Units with its co-owner, Santee Cooper, on a 55%-45% basis. However, as Ms. Walker testifies, SCE&G determined that certain items of cost included in the original budgets for the project provide a benefit to SCE&G and not to Santee Cooper. Tr. p. 250. For that reason, SCE&G is adjusting its cost forecasts. The result is a change in the cost forecast of \$2,000.

**Licensing / Permits / Nuclear Regulatory Commission (“NRC”) Inspection Fees** – Ms. Walker testified that the budget for Licensing, Permits and NRC Inspection fees has increased to reflect the increased time and effort that is being required to monitor and conduct NRC licensing activities, to respond to Requests for Additional Information from the NRC, and to pay the increased cost of NRC inspection fees. Id. Ms. Walker’s testimony indicates that the Units are receiving a level of regulatory scrutiny consistent with the fact that they are among the first new nuclear units that will be built in the

United States for several decades. Tr. p. 251. In addition, after the EPC Contract was signed, Westinghouse submitted amendments to the Design Control Documents for the AP1000 reactor to strengthen the shield building design against aircraft impacts and to make other modifications to improve the design. Id. This resulted in a more extensive NRC licensing process than was anticipated in 2006-2008. SCE&G has been required to answer more Requests for Additional Information from the NRC Staff than anticipated. Tr. p. 305-06. In addition, the NRC has issued guidance that it will increase the number and cost of its mandatory inspections of the Units during construction. Tr. p. 251-52. The combination of these factors has resulted in a \$15 million increase in this cost category.

**General and Administrative Costs** – General and Administrative costs represent the direct support provided to the NND team from non-NND cost centers within SCE&G and SCANA. Tr. p. 252. Such support includes direct support provided to the project from non-NND cost centers within SCE&G and SCANA, such as human resources, information technology, environmental, forestry, legal, audit and facilities management. Tr. at p. 240. Ms. Walker testified that, consistent with standard practice, the original forecast for these costs was based upon an estimated percentage of certain Owners Costs items as they were shown in the 2006-2008 cost forecasts. Tr. p. 252. The current budgets for General and Administrative Costs are based on detailed cost-center-by-cost-center budgets which reflect two years of actual experience with the management of the project. Each cost center anticipating charges more than \$5,000 per year to the project has been required to prepare an itemized budget for its support to the project. Id. Ms.

Walker testified that her group has carefully reviewed all costs that have been assigned to the project by non-NND areas and has carefully reviewed all budgets for future costs based on experience with Unit 1 operations, experience with other major construction projects, and the track record of past charges to the project. Tr. p. 241. General and Administrative costs have increased in part because the size of the NND Team that is being supported has increased. Tr. p. 252. It has also increased because project experience over the past two years has shown that the required support levels for the NND Teams are greater than previously budgeted. Id. Ms. Walker testified that Owners Costs budgets will continue to be reviewed and updated as part of a regular budget review process that her team has implemented. Tr. p. 243. The impact of the change in the forecasted cost for General and Administrative costs is approximately \$53 million.

**Other Non-EPC Construction** – Non-EPC Construction costs reflect the costs associated with the construction of the new Nuclear Operations Building (“NOB”), the addition to the Nuclear Learning Center and the refurbishment of the existing Nuclear Training Center. Tr. p. 253. According to Ms. Walker, the 2006-2008 cost forecasts for the NOB and the addition to the Nuclear Learning Center were based on estimates which have now been adjusted to reflect actual costs, completed designs for the buildings and specific bids from contractors. Id. For these reasons, the forecasted cost of other Non-EPC Construction has increased by approximately \$11 million.

**NuStart** – This cost category reflects the cost of SCE&G’s participation in NuStart Development, LLC (“NuStart”), along with nine other entities that are interested in having Westinghouse and General Electric design standard plants licensed by the NRC.

Tr. p. 255. As Ms. Walker testified, through NuStart the AP1000 utilities are coordinating efforts and sharing expenses in obtaining an AP1000 Reference Plant Combined Operating License (the “Reference COL”) from the NRC. Tr. p. 255-56. The Reference COL will serve as the basis for subsequent site-specific COLs for follow-on plants. Ms. Walker testified that SCE&G’s share of NuStart expenses have increased primarily because anticipated sales of the reference plant application have declined from original projections. Tr. p. 256. The forecast for NuStart costs has increased by approximately \$2.2 million.

**Other Categories** – The remaining categories of Owners Costs were either unchanged or declined. The reasons for this are explained in detail in Ms. Walker’s testimony. The category for Met Tower, Plant Site Layout, Pre-EPC Project Management reflected costs that had already been incurred at the time the EPC Contract was signed and for that reason those costs have not changed. Tr. p. 256-57. The category for Plant Equipment, Tools, Maintenance Materials, Consumables, and Supplies and the category for Spare Parts reflect costs that will be incurred later in the project and will be updated as the completion dates for the Units approach. Tr. p. 254-55. Through a fee in lieu of taxes agreement with Fairfield County, the Company has avoided the requirement to pay additional property taxes during construction of the Units. Tr. p. 257. Accordingly, property taxes have been zeroed-out in the updated estimates. The Company has also determined that it can fully offset the cost of construction power for Company use with the value of test power that will be produced during start-up and testing of the Units. Id. The cost item for electricity has been reduced to zero.

Ms. Walker's testimony provides evidence regarding each of the components making up the \$145 million adjustment and cites specific elements of those components that have contributed to the adjustment. The record shows that Ms. Walker testified as to the reasonableness and prudence of each of these items and to the reasonableness and prudence of the overall \$145 million adjustment to the Owners Cost category. Tr. p. 258. Her testimony was supported by similar testimony from Mr. Marsh and Mr. Byrne. Tr. p. 18; p. 107-08. As to the reasonableness of the budgets and budget process on which these Owners Costs adjustments were based, Ms. Walker testified: "The budgets for each [item of Owners Costs] have been carefully reviewed and evaluated for reasonableness. This analysis confirms the reasonableness of the adjustment in Owners Costs for the categories listed above, and supports the conclusion that the updated Owners Costs budget is a reasonable and prudent estimate of the cost associated with this construction project." Tr. p. 258.

In addition to this testimony, ORS witness Crisp testified that ORS has reviewed these costs and has determined them to be reasonable. Tr. p. 339.

For all the reasons set forth above, and having reviewed the testimony and the exhibits in the record of this proceeding, including the Settlement Agreement, the Commission finds that the \$145 million adjustment to Owners Costs is a reasonable, necessary and prudent adjustment to the cost schedules for the project. The parties to the Settlement Agreement have agreed that the costs presented in this proceeding are reasonable and prudent and there is no evidence in the record to suggest that they are the result of any imprudence on the part of the Company.

i. Transmission Costs

Included in the Company's proposed adjustments is approximately \$13 million, net of other changes, in the transmission budget that will be incurred for transmission work that SCE&G's transmission department will perform at the V. C. Summer Unit 1 switchyard at the Jenkinsville site. As Mr. Byrne testified, this adjustment is based on an updated assessment of the cost of certain transmission work that will be conducted in the Unit 1 switchyard to accommodate placing power from Units 2 and 3 onto the grid. Tr. p. 104. According to Mr. Byrne, this work is subject to the extensive engineering, testing, and documentation requirements that apply to projects involving transmission facilities that supply off-site power to nuclear units licensed by the NRC and is subject to the safety standards followed by the nuclear power industry. Id. As Mr. Byrne testified, the \$13 million amount, net of other adjustments, is based on a time and materials estimate that Shaw engineering has provided and SCE&G has reviewed and found to be a reasonable basis for these costs. Tr. p. 105. According to Mr. Byrne, these costs are reasonable, prudent and necessary costs of the project because they must be incurred to meet NRC and industry safety standards. Id. ORS witness Mr. Crisp also testified that these costs are necessary to facilitate the switchyard operation meeting the safety standards required by the NRC and the nuclear industry. Tr. p. 339.

The parties to the Settlement Agreement have agreed to the reasonableness and prudence of these costs and there is no evidence in the record to suggest that they are the result of any imprudence on the part of the Company. In light of the evidence of record



and the Settlement Agreement, the Commission agrees that the \$13 million in additional transmission costs reflects costs that are reasonable and prudent.

ii. Change Orders and Other EPC Cost Changes

To date there have been 11 named change orders under the EPC Contract. See Exhibit No. 5 (CLW-3). Of these change orders, one (Change Order No. 4) has been superseded by a subsequent change order and will not be executed. Four of these change orders (Change Orders No. 1, 5, 6, and 11) have no cost impact. The remaining six of these change orders (Change Orders No. 2, 3, 7, and 8-10) reflect additional costs incurred to compensate Westinghouse/Shaw for work performed outside the original scope of the EPC Contract. The impacts of these six change orders are set forth as Items 7, 8, 12, 14-16 of Exhibit No. 5 (CLW-3). Included in the adjustment is approximately \$5.2 million in costs that had previously been subject to the 55%-45% split with the project's co-owner, Santee Cooper, but that the Company has determined that it cannot charge to Santee Cooper. As Ms. Walker testified, these costs are reasonable, prudent and necessary costs of the project but are not costs that the Company can reasonably require Santee Cooper to pay. Tr. p. 235.

Collectively, these change orders and other EPC cost changes account for approximately \$16.3 million of the \$174 million in reclassified costs. Company witnesses Mr. Byrne and Ms. Walker provided testimony as to the reasonableness and prudence of the costs reflected in these change orders.

As Mr. Byrne testified, Change Orders No. 1, 4, 5, 6 and 11 resulted in no change in the overall project cost forecast. Tr. p. 87. Change Order No. 1 provided for

accelerating the training of SCE&G's reactor operator training instructors. Tr. p. 87. This change order was supplemented by Change Order No. 5, which also dealt with reactor operator training requirements. According to Mr. Byrne, the EPC Contract contains a category of funds to be used for operator training, and the costs of both Change Order No. 1 and Change Order No. 5 were taken out of that allowance resulting in no increase to the EPC Contract price. Tr. p. 87-88. Change Order No. 4 reflected early negotiations concerning a proposal to shift certain work from Target pricing under the EPC Contract to the Fixed/Firm categories. Tr. p. 87-88. Change Order No. 4, however, was superseded by Change Order No. 8, which, as discussed below, shifted 11 work scopes from Target to Fixed/Firm pricing. Change Order No. 6 approved SCE&G's request to substitute hydraulic fasteners at the flange of the Reactor Vessel for the mechanical fasteners that were originally specified. Tr. p. 88. As Mr. Byrne explained, the cost of the Reactor Vessel itself has always been included in the Fixed Price cost category so there was no impact on overall price from this change. Id.

Change Order No. 11 concerns a study that Westinghouse/Shaw is preparing in response to the delay in the expected issuance of the COL for the Units. As Mr. Byrne testified, the critical path for the construction program runs through the pouring of nuclear safety-related concrete for the base-mat of Unit 2, which can only begin after the COL is issued. Tr. p. 88. Change Order No. 11 requires Westinghouse/Shaw to prepare a detailed study of the alternatives for modifying the construction schedule to address the anticipated delay. Id. A principal purpose of the study is to quantify the costs associated with compressing the schedule and the costs of extending the substantial completion date

of Unit 2 by six months. Tr. p. 89. According to Mr. Byrne, the cost of this study will be shared 50/50 between Westinghouse/Shaw as construction contractors and SCE&G and Santee Cooper as the owners of the project. Id. Mr. Byrne testified that the Time and Materials cost category in the EPC Contract was established for the purpose of providing for consulting and engineering assistance from Westinghouse/Shaw on an as-needed basis during the course of the project and, as a result, there is no impact on the project cost based on Change Order No. 11. Tr. p. 89-90.

Mr. Byrne noted that no agreement has been reached with Westinghouse/Shaw as to the ultimate responsibility for any costs associated with the delays in the issuance of the COL. Tr. p. 90. Mr. Byrne also testified that Westinghouse/Shaw has not accepted responsibility for these potential costs. Instead, all parties have agreed to defer the discussion of payment responsibilities until after the analysis envisioned in Change Order No. 11 is completed and a path forward is chosen. Tr. p. 91. Mr. Byrne explained that decisions about how to proceed will require a careful evaluation of the results of the study and will also require negotiation of the associated contractual issues with Westinghouse/Shaw. For that reason, these decisions may not be made until some months after the study is complete. Id.

With respect to the change orders that have an impact on the overall project cost, the following is a discussion of the evidence in the record for each:<sup>2</sup>

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<sup>2</sup> The financial impact of the individual change orders is reflected in Hearing Exhibit No. 3 (SAB-2-C). Because these figures represent confidential information related to the pricing and pricing terms of the EPC Contract, this exhibit was admitted as a confidential exhibit.

a. Change Order No. 2

This change order provides for Westinghouse to supply two limited-scope simulators for on-site training for the reactor operators. As Mr. Byrne testified, Westinghouse is obligated by the EPC Contract to provide two full-scope simulators later in the project schedule. Tr. p. 91. In putting together its operator training plans, SCE&G determined that the time-frame for delivery of the full-scope simulators would not support its schedule for training a full complement of reactor operators to be available at the start-up of Unit 2. Tr. p. 92. Under Change Order No. 2, Westinghouse will provide SCE&G with two limited-scope simulators that will be sufficient to support SCE&G's initial reactor operator training activities, but will not contain all the features of the full-scope simulators that will be provided later. Id. Mr. Byrne testified that the costs associated with Change Order No. 2 were accepted after careful review of the value of the limited-scope simulators to the project and after a careful review of the reasonableness of the amount Westinghouse intended to charge for this work. Id. Mr. Byrne testified that these costs are a reasonable, necessary and prudent expense for the training of reactor operators for the new Units. Id.

b. Change Order No. 3

This change order relates to the rehabilitation of Parr Road, which is one of the principal access roads on site. As Mr. Byrne testified, prior to the completion of the new site access road, this access route received heavy use by construction equipment and needed to be resurfaced and repaired to maintain its continued usefulness to the project as an alternative delivery route to the site. Tr. p. 93. Mr. Byrne explained that the costs

involved in this work were reviewed through an open-book pricing process and compared to current prices in the construction industry. Id. He further testified that the rehabilitation of Parr Road was a necessary and prudent cost of the project and that the amount spent was reasonable, necessary and prudent. Id.

c. Change Order No. 7

This change order provided for additional engineering work necessary to accommodate carrier frequency relays at the Switchyard for the V. C. Summer – St. George 230kV transmission lines. Id. Mr. Byrne testified that the costs for this work were reasonable, prudent and necessary expenses of the project. Id.

d. Change Order No. 8

Under this change order, Westinghouse/Shaw agreed to shift \$315 million in costs under the EPC Contract from the Actual Craft Labor and the Non-Labor Cost categories to the Fixed with No Adjustment and the Firm with Indexed Adjustment cost categories. As Ms. Walker explained, these Actual Craft Labor and Non-Labor Costs are Target categories for which the EPC Contract requires SCE&G to pay actual costs as invoiced. Tr. p. 227. Under Change Order No. 8, \$315 million in additional costs are now fixed/firm and Westinghouse/Shaw bears the principal price risk for them. Id. Exhibit No. 3 (SAB-3) provides a summary of the details related to each of the scopes of work being shifted from Target to Fixed/Firm under Change Order No. 8.

All costs included in the \$315 million were part of the schedules of Actual Craft Labor or Non-Labor Costs that were approved as being reasonable and prudent in Order No. 2009-104(A). Change Order No. 8 is moving these costs to the Fixed/Firm

categories with no increase in the cost forecasts. Accordingly, the appropriateness or prudence of these costs is not at issue here. See S.C. Code Ann. § 58-33-275(B) (Supp 2010).<sup>3</sup>

In consideration of Westinghouse/Shaw assuming the price risk for the 11 scopes of work, SCE&G negotiated a 3.2% risk compensation payment, or approximately \$10 million. Mr. Byrne testified that the Company very carefully evaluated the risks and rewards related to this change order. Tr. p. 101. According to Mr. Byrne, fixing the prices on the 11 scopes of work shifts risk and responsibility for controlling costs to Westinghouse/Shaw and away from the NND Team. Tr. p. 101-02. According to Mr. Byrne, this allows SCE&G to focus on other oversight priorities and reduces the risk that disputes over the cost of these items will distract the SCE&G and Westinghouse/Shaw team from the work of constructing the Units. Id.

In support of the negotiated risk compensation payment, the Company has identified several of the ways in which this shift benefits the project as a whole beyond the price protection resulting from the shift of the costs to Fixed/Firm pricing. Among these benefits is the fact that Westinghouse/Shaw has agreed to forego escalation after August 2010 on \$69 million of the \$315 million of the Change Order No. 8 EPC Contract costs. Tr. p. 228. According to Ms. Walker, using the three-year average Handy

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<sup>3</sup> On April 25, 2011, the Commission received a letter from SCE&G informing the Commission that SCE&G had entered a voluntary agreement with ORS not to include in any future revised rates filings costs associated with the Community Support/Outreach scope of work that was transferred from the Target cost categories to the Firm with Indexed Adjustment cost category by Change Order No. 8. It is within the discretion of a utility under Section 58-33-280(B) of the Base Load Review to include less than all costs in such filings. Accordingly, the agreement between SCE&G and ORS is appropriate and enforceable. The Commission finds that this agreement represents a reasonable response to the issues raised by the Commission at the hearing in this matter related to Community Outreach/Support costs.

Whitman escalation rate of 3.89%, the Company has estimated the amount of escalation cost avoided to be \$8.6 million. Id. In addition, this shift eliminates the potential for a costly and potentially disruptive dispute concerning payment responsibility for any additional cost of the Heavy Lift Derrick (“HLD”) that has replaced the two smaller Lampson cranes identified in the EPC Contract. Tr. p. 228-29. Under Change Order No. 8, SCE&G will be charged the cost of the two Lampson cranes. Tr. p. 127. As Mr. Byrne testified, Change Order No. 8 also shifts to Westinghouse/Shaw the financial risk that the HLD may need to be disassembled and reassembled on a new foundation before fuel may be loaded into Unit 2. Tr. p. 98.

ORS witness . Crisp also testified that, in light of these benefits and the future substantial reduction in risk to the Company, the \$10 million risk compensation payment is reasonable. According to Mr. Crisp, the total conservative estimate for avoided costs as a result of the agreement to pay this amount as consideration for the cost shift is approximately \$20 million. Tr. p. 340.

Having reviewed the testimony and the supporting exhibits, and in light of the Stipulation, the Commission agrees that the \$10 million risk compensation payment is reasonable and prudent. The parties to the Settlement Agreement have agreed to the reasonableness and prudence of this payment and there is no evidence in the record to suggest that it is the result of any imprudence on the part of the Company.

e. Change Order No. 9

This change order related to the Company’s decision to construct the transmission lines needed to integrate the Units into the transmission grid using existing rights-of-way

where possible. According to Mr. Byrne, the use of existing rights-of-way should significantly reduce environmental impacts and landowners' concerns compared to establishing new green-field transmission corridors. Tr. p. 102. This decision, however, will require the new lines to enter the switchyard at different points than were originally anticipated. Id. Change Order No. 9 reflects the cost of changing the switchyard configuration to realign the receiving points for these lines. Mr. Byrne testified that the appropriateness of the cost quoted for Change Order No. 9 was verified based on a full cost justification from Shaw for the engineering work and project management it would provide and based on bids from subcontractors for services and materials. Id.

f. Change Order No. 10

This change order relates to the licenses and other costs required to allow SCE&G to access Oracle's® Primavera Project Planner® (P3®) which is the software used by Westinghouse for scheduling and resource planning for this project. As Mr. Byrne explained, Westinghouse uses this software to create and administer the integrated project schedule that serves as the master scheduling plan for the project. Tr. p. 103. In order for SCE&G's NND Team to interact and collaborate electronically in real time with Westinghouse, it is necessary for SCE&G to purchase appropriate licenses and have the software interface installed and maintained on the Westinghouse server. Id. According to the testimony, the cost for this item includes the licenses for SCE&G users, installation of software on Westinghouse's server, and support and upgrade costs for the software and the interface for seven years. Mr. Byrne testified that the benefits of having real time



access to integrated construction schedules using these software licenses fully justifies the cost. Id.

g. Switchyard Costs Not Shared with SanteeCooper

Although not related to a change order per se, the Company has included in the \$16.3 million in changes in EPC Costs the effects of reallocating certain costs related to the Unit 2 & 3 switchyard that will not be shared 55%-45% with Santee Cooper. The reallocation resulted from SCE&G's determination that certain costs included in the switchyard scope of work supported the construction of SCE&G's transmission lines serving the plant, and did not benefit Santee Cooper. Tr. p. 233. Under the arrangement between SCE&G and Santee Cooper, each owner is responsible for the cost of its own transmission lines. Id. The amount of the adjustment is \$5.2 million and is necessary to properly reflect the reasonable costs of the Units to SCE&G.

h. Conclusion as to Change Orders and Other EPC Cost Changes

Mr. Marsh, Mr. Byrne and Ms. Walker all testified that the costs associated with these change orders and other items are prudent and reasonable costs of the project. ORS witness Mr. Crisp also testified that ORS had reviewed these records and the supporting documentation and had determined them to be reasonable. Tr. p. 339. Having reviewed the testimony and the supporting exhibits, and in light of the Settlement Agreement, the Commission agrees that these change orders and other EPC cost changes are reasonable and prudent. The parties to the Settlement Agreement have agreed to the reasonableness and prudence of these costs and there is no evidence in the record to suggest that it is the result of any imprudence on the part of the Company.

d. Modification of Cash Flow Forecasts

As discussed above, Ms. Walker sponsored the updated capital cost schedule contained in Exhibit No. 6 (CLW-1 updated). Included in this updated schedule are changes to the cash flow forecast that have resulted from changes in the expected timing of construction costs. As Ms. Walker explained, SCE&G adjusts its cash flow forecasts from time to time to account for all changes in the expected timing of construction costs. Tr. p. 259. This adjustment includes acceleration or delay in milestone dates and associated payments, changes in the pace of work, contractor invoicing, and other changes. As Ms. Walker explained, such changes are the result of normal refinements and adjustments made to the construction schedule for the Units and are reasonable, prudent and necessary adjustments. Id. According to Ms. Walker, the effect of these adjustments is that the net forecasted cash flow schedule has shifted further into the future by a small amount. Id. However, it does not modify or alter the \$174 million of newly identified and itemized costs. Id.

In the Settlement Agreement, the Company and ORS agreed that these modifications to the approved capital cost schedules for the project are appropriate. No party has challenged them.

The Commission finds that the requested modification of the capital cost schedule for the Units is reasonable and prudent and there is no evidence in the record to suggest that it is the result of any imprudence on the part of the Company.

### **III. PROCEDURAL FINDINGS AND LEGAL STANDARDS**

1. In Order No. 2009-104(A), dated March 2, 2009, the Commission approved a capital costs schedule for the construction of two 1,117 net megawatt nuclear power units to be located at the SCE&G's V.C. Summer Nuclear Station near Jenkinsville, South Carolina. The approved capital cost for the project totaled \$4.5 billion in 2007 dollars.

2. In Order No. 2010-12, dated January 22, 2010, the Commission approved an updated construction schedule for the project and an updated capital costs schedule which reflected that updated construction schedule. The capital costs schedule approved in Order No. 2010-12 did not alter the total estimated capital cost for the Units of \$4.5 billion in 2007 dollars.

3. On August 9, 2010, the South Carolina Supreme Court issued its decision in *South Carolina Energy Users Comm. v. South Carolina Pub. Serv. Comm'n*, 388 S.C. 486, 697 S.E.2d 587 (2010) concerning the SCEUC's appeal of Order No. 2009-104(A). In its Opinion, the Court ruled that contingency costs which had not been itemized or designated to specific cost categories were not permitted as a part of approved capital cost schedules under the BLRA.

4. Under S.C. Code Ann. § 58-33-270(E) (Supp 2010), a utility may petition the Commission "for an order modifying any of the schedules, estimates, findings, class allocation factors, rate designs, or conditions that form part of any base load review order." The Commission shall grant the relief requested if, after a hearing, the Commission finds "that the evidence of record justifies a finding that the changes are not the result of imprudence on the part of the utility."

5. On November 15, 2010, SCE&G filed the Petition in this docket, pursuant to S.C. Code Ann. § 58-33-270(E) (Supp. 2010), seeking an order approving an updated capital costs schedule for nuclear units.

6. Under the BLRA, in cases where a settlement agreement has been entered into between ORS and the utility, the Commission is authorized to “accept the settlement agreement as disposing of the matter, and [to] issue an order adopting its terms, if it determines that the terms of the settlement agreement comport with the terms of this act.” S.C. Code Ann. § 58-33-270(G) (Supp 2010).

7. SCE&G and ORS have entered into a Settlement Agreement in which they agreed that the relief requested by SCE&G was justified and should be granted. As part of this Settlement Agreement, ORS and SCE&G agreed that the changes SCE&G sought in the updated and revised capital costs schedule for the Units “are the result of refining and improving the timing and sequence of construction activities and are not the result of imprudence by SCE&G.” Settlement Agreement at p. 6, ¶ 3(G).

8. The Commission convened a public hearing on this matter on April 4, 2011.

9. No party presented any testimony or other evidence challenging the accuracy of the proposed cost schedules or indicating that the \$174 million in newly identified and itemized costs are imprudent costs or are in any way the result of SCE&G’s failure to manage the project prudently.

#### **IV. FINDINGS OF FACT AND CONCLUSIONS OF LAW**

1. The updated capital cost schedule contained in Hearing Exhibit No. 6 (CLW-1 updated) appropriately reflects the removal of \$438 million in projected contingency

costs and \$217 million in escalation costs from the cost schedules for the Units. These are the appropriate amounts of contingency costs to be removed pursuant to the Supreme Court's Opinion.

2. The updated capital cost schedule contained in Hearing Exhibit No. 6 (CLW-1 updated) reflects \$174 million in costs that have not previously been presented to the Commission for review and approval.

3. This \$174 million is comprised of approximately \$145 million in newly identified and itemized Owners Costs, \$13 million in newly identified and itemized transmission costs, and \$16 million in costs associated with certain change orders that have been negotiated and identified to EPC Contract for the Units and certain reallocations of costs between SCE&G and its co-owner, Santee Cooper.

4. The evidence in the record demonstrates that the \$174 million in newly identified and itemized costs are the result of the normal evolution and refinement of construction plans and budgets for the Units and are not the result of imprudence.

5. The evidence in the record demonstrates that the \$174 million in newly identified and itemized capital costs are not the result of any imprudence on the part of SCE&G. These costs are reasonable, necessary and prudent costs that SCE&G is incurring as owner of the project to ensure that the project is constructed prudently, efficiently and economically, and to ensure that the Units can be operated and maintained safely and efficiently when they are completed.

6. The updated capital cost schedule contained in Hearing Exhibit No. 6 (CLW-1 updated) also reflects changes to the cash flow forecast that have resulted from changes

in the expected timing of construction costs. The effect of these adjustments is that the net forecasted cash flow schedule has shifted further into the future by a small amount. This shift in the timing of costs affects forecasted escalation in the project but does not modify or alter the amount of newly identified and itemized costs, which remains \$174 million in 2007 dollars.

7. The evidence in the record demonstrates that the changes in project cash flows represent the reasonable and necessary updating of cash flow projections and do not represent imprudence on the part of the Company.

8. The evidence in the record establishes that the Settlement Agreement comports with the terms of the BLRA. The Commission accepts the Settlement Agreement as disposing of this matter and adopts its terms by incorporation.

Now, therefore, IT IS HEREBY ORDERED:

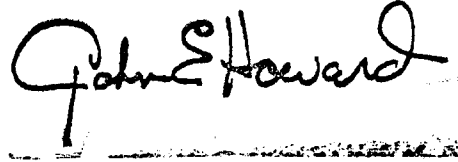
1. That the capital costs schedule set forth in Hearing Exhibit No. 6 (CLW-1 updated), attached hereto as **Order Exhibit No. 1**, shall be the approved capital cost schedule for the Units until such time as the Commission approves a substitute schedule pursuant to S.C. Code Ann. § 58-33-270(E) (Supp 2010).

2. That the Settlement Agreement, attached hereto as **Order Exhibit No. 2**, is incorporated herein by this reference, is found to be a reasonable resolution to the issues in this case, is in the public interest and is therefore hereby adopted and approved.

3. That the future quarterly reports filed by SCE&G under S.C. Code Ann. § 58-33-277 (Supp 2010) shall reflect the modified schedule approved in this Order.

4. That this Order shall remain in full force and effect until modified by a subsequent order of the Commission.

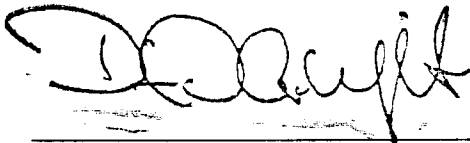
BY ORDER OF THE COMMISSION:

A handwritten signature in black ink, appearing to read "John E. Howard". The signature is written in a cursive style with a large initial "J".

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John E. Howard, Chairman

ATTEST:

A handwritten signature in black ink, appearing to read "David A. Wright". The signature is written in a cursive style with a large initial "D".

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David A. Wright, Vice Chairman

(SEAL)

DOCKET NO. 2010-376-E  
ORDER NO. 2011-345  
MAY 16, 2011  
ORDER EXHIBIT NO. 2

**BEFORE**

**THE PUBLIC SERVICE COMMISSION OF**

**SOUTH CAROLINA**

**DOCKET NO. 2010-376-E**

**MARCH 28, 2011**

IN RE:	)	
Petition of South Carolina Electric & Gas	)	
Company for Updates and Revisions to	)	<b>SETTLEMENT</b>
Schedules Related to the Construction of a	)	<b>AGREEMENT</b>
Nuclear Base Load Generation Facility at	)	
Jenkinsville, South Carolina	)	

This Settlement Agreement ("Agreement") is made by and between the South Carolina Office of Regulatory Staff ("ORS") and South Carolina Electric & Gas Company ("SCE&G") (collectively referred to as the "Parties" or sometimes individually as a "Party").

WHEREAS, the Public Service Commission of South Carolina ("Commission") opened this docket to consider a Petition filed by SCE&G ("Petition") on November 15, 2010 to update and revise the nuclear facilities' ("the Units") construction and capital cost schedules pursuant to S.C. Code Ann. § 58-33-270(E) and as set forth in the Base Load Review Act ("BLRA") Order No. 2009-104(A) as revised by Commission Order No. 2010-12 and the Opinion of the South Carolina Supreme Court ("the Court") in South Carolina Energy Users Comm. v. South Carolina Pub. Serv. Comm'n, 388 S.C. 486, 697 S.E.2d 587 (2010);

WHEREAS, S.C. Code Ann. § 58-33-270(E) states:

As circumstances warrant, the utility may petition the commission, with notice to the Office of Regulatory Staff, for an order modifying any of the schedules, estimates, findings, class allocation factors, rate designs, or conditions that form part of any base load review order issued under this section. The commission shall grant the relief requested if, after a hearing, the commission finds:



- (1) as to the changes in the schedules, estimates, findings, or conditions, that the evidence of record justifies a finding that the changes are not the result of imprudence on the part of the utility; and
- (2) as to the changes in the class allocation factors or rate designs, that the evidence of record indicates the proposed class allocation factors or rate designs are just and reasonable.

WHEREAS, SCE&G filed this Petition as a result of and in response to the Opinion of the Court in South Carolina Energy Users Comm., 697 S.E.2d at 592, wherein the Court ruled that projected contingency costs of \$438 million which had not been itemized or designated to specific cost categories were not permitted as a part of the approved capital cost schedules approved in Orders No. 2009-104(A) and No. 2010-12.

WHEREAS, SCE&G has claimed in its Petition, and evidenced to the satisfaction of ORS that it has accelerated and expanded the staffing of its New Nuclear Deployment (“NND”) team, assembled a New Nuclear Deployment Finance team, updated and refined its forecasts to include specific costs associated with construction of the Units, updated its assessment of costs of certain transmission work to accommodate the transfer of power from the Units onto the grid, and has agreed to pay a \$10 million risk compensation payment to shift \$315 million from the Target to Fixed/Firm Cost Categories;

WHEREAS, the updated capital cost schedule does not alter the commercial operation dates of 2016 and 2019, respectively, for the Units;

WHEREAS, the updated capital cost schedule superseding the schedule found in Commission Order No. 2010-12: 1) removes approximately \$438 million in Contingency Dollars in compliance with the Court’s Opinion; 2) removes approximately \$217 million in Contingency Escalation from the Capital Cost Schedule in accordance with the Court’s Opinion; and 3) includes approximately \$174 million in capital costs of which \$145 million represents owners

costs, \$16 million represents Engineering, Procurement and Construction ("EPC") contract and non-EPC contract costs , and \$13 million represents transmission costs.

WHEREAS, compared to the projections current at the time that Order No. 2009-104(A) was issued by the Commission, the average annual rate adjustment associated with construction of the Units has dropped from 2.49% to 2.18%, primarily due to changes in escalation rates;

WHEREAS, the Commission allowed for public comment and intervention in the above-captioned docket;

WHEREAS, SCEUC and CMC made a timely request to intervene in this docket;

WHEREAS, SCE&G and ORS pre-filed testimony in this docket;

WHEREAS, no other testimony was filed;

WHEREAS, the Parties to this Agreement have engaged in discussions to determine if a Settlement Agreement would be in their best interest and pursuant to S.C. Code Ann. § 58-33-270(G) request that the Commission promptly schedule a hearing to consider this Settlement Agreement entered into between ORS and the Company; and

WHEREAS, following these discussions the Parties have each determined that their interest and the public interest would be best served by agreeing to matters in the above-captioned case under the terms and conditions set forth below.

1. The Parties agree to stipulate into the record before the Commission the direct testimony and exhibits of the following five (5) witnesses without objection, change, amendment or cross-examination with the exception of changes comparable to those which would be presented via an errata sheet or through a witness noting a correction.

(i) SCE&G witnesses:

1. Stephen A. Byrne
2. Kevin Marsh
3. Carlette L. Walker

(ii) ORS witness:

4. Mark W. Crisp, P.E.
5. M. Anthony James, P.E.

2. The Parties agree that they will offer no other evidence in the proceeding other than the stipulated testimony and exhibits identified above and any additional pre-filed testimony or exhibits by agreement of the Parties. The Parties reserve the right to engage in redirect examination of witnesses as necessary to respond to issues raised by examination of their witnesses by non-Parties or members of the Commission or by late-filed testimony by non-Parties.

3. All Parties adopt, accept, and acknowledge as the agreement of the Parties that:

A. In compliance with the Opinion of the South Carolina Supreme Court in South Carolina Energy Users Comm., 697 S.E.2d 587, SCE&G has removed approximately \$438 million in owner's contingency funds that were included in the cost schedules approved by the Commission in Order No. 2009-104(A) and Order No. 2010-12.

B. Consistent with the work performed by SCE&G to refine and update its cost projections and also consistent with change orders negotiated by SCE&G with Westinghouse/Shaw, SCE&G has identified and itemized approximately \$174 million in capital costs for the construction of the Units to specific cost categories and is described in Settlement Exhibit 1.

C. SCE&G has updated its cash flow projections to reflect the Company's continued refinement of the Units construction schedule and timing changes related to the schedule for capital costs recognized or incurred by SCE&G since the issuance of Order No. 2010-12, including timing changes as a result of change orders to the EPC contract.

These changes effectively true-up the cash flow forecast to reflect changes in the forecasted construction schedules and milestone completion dates as reflected in the Quarterly Reports filed by SCE&G with ORS and the Commission.

D. These changes effectively decrease the capital cost for the Units in 2007 dollars from the \$4.5 billion, with Contingency Dollars, approved by the Commission in Order No. 2009-104(A) at page 123 paragraph 6 to \$4.3 billion, without Contingency Dollars. Further, along with changes in escalation rates these changes have reduced the gross construction cost of the Units from the \$6.9 billion, with Contingency Dollars, approved by the Commission in Order No. 2010-12, (Order Exhibit No. 2) to \$5.8 billion, without Contingency Dollars.

E. The Parties acknowledge that, based upon the Quarterly Report ending December 31, 2010, the Units are being constructed in accordance with the construction schedules and cumulative cost forecasts and other terms as approved in Commission Order Nos. 2009-104(A) and 2010-12. As of December 31, 2010, the project was on budget and SCE&G had spent approximately \$861 million in capital, not including allowance for funds used during construction.

F. The Parties acknowledge that SCE&G provides information regarding the status of project milestones through a quarterly reporting process. These Quarterly Reports, the most recent of which was for the Quarter ending December 31, 2010, includes updated milestone schedules showing all completed milestones and all changes in forecasted milestone completion dates for the 146 milestones tracked under Commission Order No. 2010-12.

G. The Parties agree that the updated construction schedule and capital cost schedule are the result of refining and improving the timing and sequence of construction activities and are not the result of imprudence by SCE&G.

H. The Parties agree that the restated and updated construction expenditures should be approved by the Commission as the new schedules. Specifically, the restated and updated construction expenditures schedule set forth in Exhibit 1 of SCE&G's request, and further delineated as Exhibit CLW-1 (updated) of the Supplemental Direct Testimony of Carlette L. Walker, should replace Exhibit 2 of Order No. 2010-12 which had replaced Exhibit F in Order No. 2009-104(A). The Parties agree that the updated construction expenditures schedule more closely aligns construction and cash flow and allows for easier monitoring. Therefore, the Parties seek approval of Settlement Exhibit 2-(Exhibit CLW-1-C Updated) which replaces earlier versions of the construction expenditures schedules approved in prior Commission orders.

4. The Parties agree that the terms of this Agreement are reasonable, in the public interest and in accordance with law and regulatory policy.

5. ORS is charged with the duty to represent the public interest of South Carolina pursuant to S.C. Code §58-4-10(B) (Supp. 2010). S.C. Code §58-4-10(B)(1) through (3) reads in part as follows:

“...‘public interest’ means a balancing of the following:

- (1) Concerns of the using and consuming public with respect to public utility services, regardless of the class of customer;
- (2) Economic development and job attraction and retention in South Carolina; and
- (3) Preservation of the financial integrity of the State's public utilities and continued investment in and maintenance of utility facilities so as to provide reliable and high quality utility services.”

6. The Parties agree to cooperate in good faith with one another in recommending to the Commission that this Agreement be accepted and approved by the Commission as a fair, reasonable and full resolution in the above-captioned proceeding. The Parties agree to use reasonable efforts to defend and support any Commission order issued approving this Agreement and the terms and conditions contained herein.

7. The Parties request that the Commission hold a hearing on this Agreement, pursuant to S.C. Code Ann. § 58-33-270(G), simultaneously with the hearing on the merits of the Petition, which is currently scheduled to begin on April 4, 2011 and request that the Commission adopt this Agreement as part of its order in this proceeding. In furtherance of this request, the Parties stipulate and agree that the terms of this Agreement comport with the terms of the BLRA.

8. This Agreement contains the complete agreement of the Parties. There are no other terms or conditions to which the Parties have agreed. The Parties agree that this Agreement will not constrain, inhibit or impair their arguments or positions held in future proceedings, nor will this Agreement, or any of the matters agreed to in it, be used as evidence or precedent in any future proceeding. If the Commission should decline to approve this Agreement in its entirety, then any Party desiring to do so may withdraw from the Stipulation without penalty.

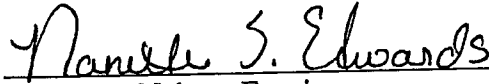
9. This Agreement shall be effective upon execution by the Parties and shall be interpreted according to South Carolina law. The above terms and conditions fully represent the agreement of the Parties hereto. Therefore, each Party acknowledges its consent and agreement to the terms and conditions of this Agreement by affixing his or her signature or authorizing its counsel to affix his or her signature to this document where indicated below. Counsel's signature represents his or her representation that his or her client has authorized the execution of the Agreement. Facsimile signatures and e-mail signatures shall be as effective as original

signatures to bind any Party. This document may be signed in counterparts, with the various signature pages combined with the body of the document constituting an original and provable copy of this Stipulation.

[Signatures on the following pages.]

WE AGREE:

**Representing and binding the South Carolina Office of Regulatory Staff**

A handwritten signature in cursive script that reads "Nanette S. Edwards". The signature is written in dark ink and is positioned above a horizontal line.

Jeffrey M. Nelson, Esquire

Nanette S. Edwards, Esquire

**South Carolina Office of Regulatory Staff**

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Columbia, SC 29201

Phone: (803) 737-0823

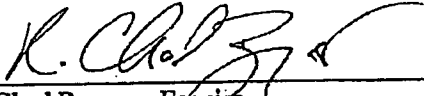
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WE AGREE:

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**SETTLEMENT EXHIBIT 1 (REVISED)**

Exhibit No: MWC-6 Public

**Summary of Increases**

Dollars Reflect SCE&amp;G 55% share (\$000)

Category	Description
Change Order #2	Limited Scope Simulator
Change Order #3	Parr Road
Change Order #7	Switchyard Communications
Change Order #8	Target to Firm Shift
Change Order #9	Switchyard Redesign
Change Order #10	P3 Software
Change Order #11	Schedule Impact Study
Non EPC Cost Item	Alternate A/C Line Cost transferred to Unit 1
Non EPC Cost Item	Switchyard not Split with Santee Cooper 55/45
<b>Subtotal of Change Orders and Non EPC Cost Items</b>	
<b>\$16,367</b>	

Category	Description
Transmission	Unit 1 Switchyard Redesign
<b>Subtotal of Transmission</b>	
<b>\$13,000</b>	

Category	Description
Owners Cost	Owners Cost Variance - Labor
Owners Cost	Owners Cost Variance - Non Labor
Owners Cost	Cost not Split 55/45
<b>Subtotal of Owners Cost</b>	
<b>\$144,583</b>	

<b>Total Increases</b>	
<b>\$173,950</b>	

Due to rounding, the amounts contained may not precisely reflect the amounts specified in testimony or other exhibits.

DOCKET NO. 2010-376-E  
ORDER NO. 2011-345  
MAY 16, 2011  
ORDER EXHIBIT NO. 1

**SETTLEMENT EXHIBIT 2**  
**Exhibit 1**  
**RESTATED and UPDATED CONSTRUCTION EXPENDITURES**  
(Thousands of \$)

V.C. Summer Units 2 and 3 - Summary of SCE&G Capital Cost Components

Actual through December 2010\* plus  
Projected

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Plant Cost Categories</b>												
Fixed with No Adjustment												
Firm with Fixed Adjustment A												
Firm with Fixed Adjustment B												
Firm with Indexed Adjustment												
Actual Craft Wages												
Non-Labor Costs												
Time & Materials												
Owners Costs												
Transmission Costs												
Total Base Project Cost(2007 \$)	4,270,404	21,723	97,386	319,073	377,225	440,602	696,093	669,056	483,136	438,767	323,231	193,183
Total Project Escalation	1,260,855	-	3,519	20,930	21,327	57,391	160,900	202,693	181,623	188,837	171,270	111,492
<b>Total Revised Project Cash Flow</b>	<b>5,531,259</b>	<b>21,723</b>	<b>100,905</b>	<b>340,003</b>	<b>398,552</b>	<b>497,994</b>	<b>856,993</b>	<b>871,748</b>	<b>664,760</b>	<b>627,604</b>	<b>494,501</b>	<b>304,676</b>
<b>Cumulative Project Cash Flow(Revised)</b>		<b>21,723</b>	<b>122,629</b>	<b>462,632</b>	<b>861,184</b>	<b>1,359,178</b>	<b>2,216,171</b>	<b>3,087,919</b>	<b>3,752,678</b>	<b>4,380,283</b>	<b>4,874,784</b>	<b>5,179,460</b>
AFUDC(Capitalized Interest)	255,684	645	3,497	10,564	17,150	24,188	32,098	42,559	37,585	30,731	21,543	17,561
<b>Gross Construction</b>	<b>5,786,943</b>	<b>22,368</b>	<b>104,403</b>	<b>350,567</b>	<b>415,702</b>	<b>522,181</b>	<b>889,091</b>	<b>914,307</b>	<b>702,345</b>	<b>658,335</b>	<b>516,044</b>	<b>322,237</b>
<b>Construction Work in Progress</b>		<b>22,368</b>	<b>126,771</b>	<b>477,338</b>	<b>893,040</b>	<b>1,415,221</b>	<b>2,304,312</b>	<b>3,218,618</b>	<b>3,920,963</b>	<b>4,579,298</b>	<b>5,095,342</b>	<b>5,417,579</b>

\* Applicable index escalation rates for 2010 are estimated. Escalation is subject to restatement when actual indices for 2010 are final.

Notes:

2011-2018 AFUDC rate applied

5.87%

Escalation rates vary from reporting period to reporting period according to the terms of Commission Order 2009-104(A).

These projections reflect current escalation rates. Future changes in escalation rates could substantially change these projections.